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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,267	01/14/2004	Anil Kumar	1905A1	3600
7590 07/08/2005			EXAMINER	
Frank P. Mallak PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272			STULTZ, JESSICA T	
			ART UNIT	PAPER NUMBER
			2873	
DATE MAILED: 07/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,267

Applicant(s)

KUMAR ET AL.

Examiner

Jessica T. Stultz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-194 is/are pending in the application.
- 4a) Of the above claim(s) 34-116, 142-156 and 178-192 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33, 117-135, 140, 157-163, 176-177, 193 and 194 is/are rejected.
- 7) ☒ Claim(s) 136-139, 141 and 164-175 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0204,0405.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group 1a, claims 1-33, 117-141, 157-177, and 193-194 in the reply filed on May 2, 2005 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 117, 157, and 193-194 are rejected under 35 U.S.C. 102(e) as being anticipated by Dudai.

Regarding claims 1, 4, 117, 157, and 193, Dudai discloses a method of making an ophthalmic element and an ophthalmic element formed (Column 7, lines 9-27, wherein the ophthalmic element is contact lens "10", Figures 5-6), comprising forming at least a partial coating adapted to polarize at least transmitted radiation on at least a portion of at least one exterior surface of the ophthalmic element (Column 7, lines 9-27, wherein a partial polarized coating "18" is applied to the contact lens "10", Figures 5-6), and adapting at least a portion of the partial coating to polarize at least transmitted radiation (Column 6, line 6-Column 7, line 34, wherein the polarized coating polarizes glare and ultraviolet radiation, Figures 3-6).

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Regarding claim 2, and 194, Dudai further discloses that the ophthalmic element is a corrective lens (Column 5, lines 7-9 and Column 7, lines 9-14, wherein the contact lenses are prescription contact lenses).

Regarding claim 3, Dudai further discloses that the ophthalmic element is a tinted ophthalmic element (Column 6, line 29 and Column 7, lines 9-14, wherein the contact lenses include tinted portion "36", Figure 7).

Regarding claim 5, Dudai further discloses that the partial coating is adapted to polarize transmitted visible and ultraviolet radiation (Column 6, line 6-Column 7, line 34, wherein the polarized coating polarizes glare and ultraviolet radiation, Figures 3-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudai, as applied to claim 1 above, in view of Moravec et al.

Regarding claims 6-15, Dudai discloses an ophthalmic element as shown above, but does not specifically disclose that the partial polarized coating comprises at least one dichroic material with an absorption ratio ranging from 2-30, more specifically above 10, specifically wherein the dichroic material is a polymerizable azo or anthraquinone dye, wherein the coating includes a second dichroic material with a different absorption ratio than the first dichroic material. Moravec et al teaches of a polarized coating for an ophthalmic lens (Column 3, lines 4-7,

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wherein the polarizing films are applied to ophthalmic lenses) including a first dichroic material (Column 3, lines 4-7, wherein the polarized film includes a dichroic dye), specifically a polymerizable (Column 6, lines 28-52, wherein the dichroic material is polymerized) azo or anthraquinone dye (Column 1, lines 21-29 and Column 5, lines 20-35, wherein azo or anthraquinone compounds are used in the polarized film), which has an absorption ratio ranging from 2-30, more specifically above 10 (Column 2, line 49-Column 3, line 7, wherein the dichroic dye contributes to 10-90% light absorption), and a second dichroic material with a different absorption ratio than the first dichroic material (Column 5, line 66-Column 6, line 27, wherein the polarized film includes additional different dichroic layers) for the purpose of aligning and orienting polarizer elements and to provide a polarizing film with improved physical and chemical properties (Column 5, line 66-Column 6, line 52). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the ophthalmic element of Dudai to further include at least one dichroic material with an absorption ratio ranging from 2-30, more specifically above 10, specifically wherein the dichroic material is a polymerizable azo or anthraquinone dye, wherein the coating includes a second dichroic material with a different absorption ratio than the first dichroic material since Moravec et al teaches of a polarized coating for an ophthalmic lens including a first dichroic material, specifically a polymerizable azo or anthraquinone dye, which has an absorption ratio ranging from 2-30, more specifically above 10, and a second dichroic material with a different absorption ratio than the first dichroic material for the purpose of aligning and orienting polarizer elements and to provide a polarizing film with improved physical and chemical properties.

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Claims 16-33, 118-122, 129-135, 140, 158-163, and 176-177 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudai, as applied to claims 1, 117, and 157 above, in view of Boulineau et al.

Regarding claims 16-33, 118, 122, 129-135, 140, 161-163, and 176-177, Dudai discloses an ophthalmic element and method of making an ophthalmic element as shown above, wherein the polarized layer is subject to an orientation facility, specifically plane-polarized ultraviolet radiation (Column 6, line 6-Column 7, line 34, wherein the polarized coating polarizes glare and ultraviolet radiation, Figures 3-6), but does not specifically disclose that the polarized coating comprises at least one dichroic material partially aligned and bound to an anisotropic material, specifically a photocross-linkable, partially oriented liquid crystal material, including acrylate, methacrylate or allyl, and a photochromic material or mixture of photochromic materials, specifically fulgimides or fulgides or metal oxide; light stabilizers, and a primer coating, and at least a partial anti-reflective coating on an opposite side of the element. Boulineau et al teaches of a polarized layer for an ophthalmic lens (Abstract) comprising at least one dichroic material at least partially aligned (Sections 41 and 46-47, wherein the dichroic dye is applied during stretching of the film and at least partially aligned) and bound to an anisotropic material (Section 48, wherein the polarizing film includes dichroic dyes and liquid crystalline polymer), specifically a photocross-linkable partially oriented liquid crystal material (Section 88), including acrylate, methacrylate or allyl (Section 50); further including a photochromic material or mixture of photochromic materials (Sections 41, 49, and 55-56), specifically fulgimides or fulgides (Section 55) or metal oxide (Section 55); light stabilizers (Section 54), and a primer coating (Section 41 and 50, wherein the primer coating is the resin material), and at least a partial

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anti-reflective coating on an opposite side of the element (Section 84) for the purpose of providing a polarized film that is moisture and abrasion resistant and of the desired color (Sections 40-47). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the ophthalmic element and method of making an ophthalmic element of Dudai to further include the polarized coating comprising at least one dichroic material partially aligned and bound to an anisotropic material, specifically a photocross-linkable, partially oriented liquid crystal material, including acrylate, methacrylate or allyl, and a photochromic material or mixture of photochromic materials, specifically fulgimides or fulgides or metal oxide; light stabilizers, and a primer coating, and at least a partial anti-reflective coating on an opposite side of the element since Boulineau et al teaches of a polarized layer for an ophthalmic lens comprising at least one dichroic material at least partially aligned and bound to an anisotropic material, specifically a photocross-linkable partially oriented liquid crystal material, including acrylate, methacrylate or allyl; further including a photochromic material or mixture of photochromic materials, specifically fulgimides or fulgides or metal oxide; light stabilizers, and a primer coating, and at least a partial anti-reflective coating on an opposite side of the element for the purpose of providing a polarized film that is moisture and abrasion resistant and of the desired color.

Regarding claims 119-121 and 158-160, Dudai and Boulineau et al disclose and teach of a method of making an ophthalmic element as shown above, but do not specifically disclose whether the applying of the dichroic material and anisotropic material occurs before, after, or at the same time as the alignment of the dichroic material. However it is inherent that the application of the dichroic material and anisotropic material occurs before, after, or at the same

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time as the alignment of the dichroic material, this being reasonably based upon the disclosure of the alignment of the dichroic material during stretching of the film, wherein the liquid crystal material is applied at any time during the process (Sections 47-48).

Claims 123-128 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudai and Boulineau et al as applied to claim 118 above, and further in view of Moravec et al.

Regarding claims 123-128, Dudai and Boulineau et al disclose and teach of a method of making an ophthalmic element as shown above, but do not specifically disclose that the polarized coating comprises at least one dichroic material with an absorption ratio ranging from 2-30, more specifically above 10, specifically wherein the dichroic material is a polymerizable azo or anthraquinone dye. Moravec et al teaches of a polarized coating for an ophthalmic lens (Column 3, lines 4-7, wherein the polarizing films are applied to ophthalmic lenses) including a first dichroic material (Column 3, lines 4-7, wherein the polarized film includes a dichroic dye), specifically a polymerizable (Column 6, lines 28-52, wherein the dichroic material is polymerized) azo or anthraquinone dye (Column 1, lines 21-29 and Column 5, lines 20-35, wherein azo compounds are used in the polarized film), which has an absorption ratio ranging from 2-30, more specifically above 10 (Column 2, line 49-Column 3, line 7, wherein the dichroic dye contributes to 10-90% light absorption), for the purpose of providing a aligning and orienting the polarizer elements and to provide a polarizing film with improved physical and chemical properties (Column 5, line 66-Column 6, line 52). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the ophthalmic element of Dudai to further include at least one dichroic material with an absorption ratio ranging from 2-30, more specifically above 10, specifically wherein the dichroic material is

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a polymerizable azo or anthraquinone dye since Moravec et al teaches of a polarized coating for an ophthalmic lens including a first dichroic material, specifically a polymerizable azo or anthraquinone dye, which has an absorption ratio ranging from 2-30, more specifically above 10, for the purpose of providing a aligning and orienting the polarizer elements and to provide a polarizing film with improved physical and chemical properties.

Allowable Subject Matter

Claims 136-139, 141, and 164-175 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowable subject matter: none of the prior art alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103.

Specifically regarding claims 136-139, none of the prior art alone or in combination disclose or teach of a method of making an ophthalmic element including at least a partial coating adapted to polarize at least transmitted radiation, specifically including applying at least a first partial coating including an alignment medium and at least partially ordering the alignment medium, applying at least a second partial coating including an alignment transfer material and at least partially aligning the alignment transfer material, and applying a third partial coating including an anisotropic material and dichroic material and at least partially aligning a portion of the dichroic material.

Specifically regarding claim 141, none of the prior art alone or in combination disclose or teach of a method of making an ophthalmic element including at least a partial coating adapted to

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polarize at least transmitted radiation wherein an orientation facility is applied prior to forming the partial coating, specifically including applying at least a partial coating including an alignment medium and at least partially aligning the alignment medium, applying an at least partially stretched polymer sheet and at least partially treating at least a portion of the exterior surface of the element.

Specifically regarding claims 164-175, none of the prior art alone or in combination disclose or teach of a method of making an ophthalmic element including at least a partial coating adapted to polarize at least transmitted radiation, wherein the steps of applying the partial coating specifically include the steps of applying an at least partial coating comprising an alignment medium; at least partially ordering the alignment medium, at least partially aligning a portion of the alignment medium, applying a dichroic material to the alignment medium, and at least partially aligning the dichroic material.

Examiner's Comments

For applicant's information, due to the extreme broadness of the independent claims, any ophthalmic lens with a polarized layer on an exterior surface would inherently read on independent claims 1, 117, 157, and 193. Specifically, cited reference Montgomery reads on the independent claims since it discloses a polarizing film applied to an external surface of a spectacle lens (Section 71, wherein the polarizing film is "33", Figure 3), which polarizes transmitted light (Abstract, wherein the lenses are sunglasses and therefore polarize visible and ultraviolet light).

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Conclusion

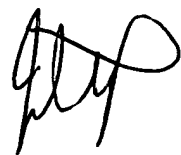
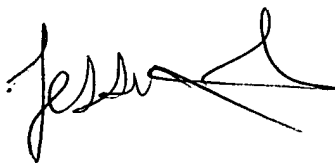
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Montgomery, Goepfert et al, and Slocum are cited since they read on with the present invention since they disclose ophthalmic lenses with polarized coatings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T. Stultz whose telephone number is (571) 272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jessica Stultz
Patent Examiner
AU 2873
July 6, 2005



JORDAN SCHWARTZ
PRIMARY EXAMINER